

ABSTRACT OF THE DISCLOSURE

In a cavity down BGA packaging structure, a circuit substrate is bonded onto a heat spreader. A cavity formed is formed in the circuit substrate into which a chip is bonded onto the heat spreader. The circuit substrate has at least an insulating layer, a
5 patterned wiring layer, and a via electrically connected to the heat spreader. A first ground pad, ball pad, and first contact pad are defined on the patterned wiring layer, wherein the first ground pad is spaced apart from and electrically connected to the via. The chip comprises at least a second contact pad and a second ground pad respectively connected to the first contact pad and the heat spreader. An encapsulant material
10 encapsulates the cavity, the chip, and the first and second contact pads. A plurality of solder balls are attached to the first ground pad and ball pad.